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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/752,809	12/27/2000	J. Tracy Weed	50275-0018	1531

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BEVER HOFFMAN & HARMS, LLP
1432 CONCANNON BLVD
BLDG G
LIVERMORE, CA 94550-6006

EXAMINER

FISHER, MICHAEL J

ART UNIT	PAPER NUMBER
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3629

DATE MAILED: 03/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/752,809

Applicant(s)

WEED ET AL.

Examiner

Michael J Fisher

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-71 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-71 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>5.6</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19, 26, 27, 46 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 19 and 46 recite the limitation "which flaws" in line 2. There is insufficient antecedent basis for this limitation in these claims.

As to claim 26, there is disagreement between the preamble and the body of the claim. Specifically, while the preamble calls for a phase-shifted mask to be produced, there is no limitation that actually produces a phase-shifted mask. The language, "causing a mask maker..." does not positively claim actually manufacturing a mask.

Claim 27 recites the limitation "said phase-shifted mask" in lines 2 and 3. There is insufficient antecedent basis for this limitation in the claim.

Claim 27 is further rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: Actually manufacturing a phase-shifted mask. As stated above, the language, "causing a mask maker..." does not positively claim actually manufacturing a mask.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. As to claims 1-25,28-71, there is no technological innovation as there is nothing produced. The claim language, "causing ... to manufacture..." does not positively claim actually manufacturing the items.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-71 are rejected under 35 U.S.C. 103(a) as being unpatentable over National Security and the Semiconductor Industry by Dallmeyer.

Note, the page numbers used will be as provided and not as originally published. As to claims 1,26,27,28 and 53, Dallmeyer discloses providing a subsidy for manufacturing integrated circuits (pg 2, lines 44-46). Dallmeyer does not, however, teach the integrated circuits as containing phase-shifted masks, or specifically include a facilitator and further, receiving, by said facilitator, compensation for the subsidies based on market success.

Dallmeyer does teach actually giving the subsidies, therefore, there would inherently need to be a facilitator as there would, of necessity, be someone to lead the organization giving the subsidies. Dallmeyer further discloses the subsidies as being useful for advanced technology, which includes phase-shifted masks. Further, it would have been obvious to one of ordinary skill in the art to tie the subsidies into market factors, such as price, else the program could become excessively wasteful for the subsidizer as they subsidize a product that does not need subsidy.

As to claims 2,29,53 as Dallmeyer discloses the Department of Defense as being the subsidizer, it would be inherent that they require that particular population of designs useful to them. Further, it would be inherent that the subsidies would be based on market success of the items, as this is what affects price as is shown in the law of supply and demand.

As to claims 3,30,55, it would be obvious to one of ordinary skill in the art to use the cost of less expensive types of chips else the manufacturer could be offered too

small an incentive to build the chip or too much and thereby unnecessarily expand their profits.

As to claim 4, it would be inherent that the facilitator is paid and further, that the manufactured products are used.

As to claims 5,32,57, this is considered to be intended use of the product and therefore, not patentably distinct. Specifically, whether to sell or rent the product.

As to claims 6,33,56,58, it would be obvious to one of ordinary skill in the art to tie the pay of the facilitator with the overall revenue as the higher the revenue, the more work involved and thus, the more the facilitator deserves as compensation.

As to claims 7,21,31,34,48,59,69, it is very well known in the art to receive a volume discount, therefore, it would have been obvious to one of ordinary skill in the art to provide a volume discount to incentivize the facilitator to choose them for manufacture of the masks.

As to claims 8,35,60 it is well settled in case law that duplication of parts is has no patentable significance (St. Regis Paper co. V. Bemis Co., Inc 193 USPQ 8, 11 (7th Cir. 1977), it would have been obvious to one of ordinary skill in the art to allow another, friendly, government to subsidize the manufacture as they would also need the chips.

As to claims 9,10,36,37,61,62, Dallmeyer discloses there being a plurality of manufacturers (pg 2, line 46, "Sematech, a new *consortium*").

As to claims 11,38, it would be inherent that the products meet minimum requirements else the masks could be substandard and therefore not usable.

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As to claims 12,13,14,39,40,41,63,64, 65,66, it would be obvious to one of ordinary skill in the art to investigate which manufacturer could best meet the needs of the government and, therefore, for the facilitator to choose the best manufacturers.

As to claims 15,42, reticles are very well known in the art to be included in phase-shifted masked integrated circuits and therefore, it would have been obvious to one of ordinary skill in the art to use reticles as criteria as these are important to the functioning of the product.

As to claims 16,43, it is inherent that the reticle would have information about itself contained on itself.

As to claims 17,44,67, it is very well known in the art to conduct quality assurance tests on manufactured items. Therefore, it would have been obvious to one of ordinary skill in the art to use quality assurance testing to ensure that the manufactured items are not substandard and therefore, unusable.

As to claims 18,45,68, it would have been obvious to one of ordinary skill in the art to perform the quality assurance testing before using the product else a substandard product could be used.

As to claims 19,46 as best understood, a stepper simulation tool is very well known and it would have been obvious to one of ordinary skill in the art to use one to determine which flaws would have to be corrected else unnecessary costs could be incurred by unnecessary repairs to equipment.

As to claims 20,47 it would have been obvious to one of ordinary skill in the art to adjust the parameters of the stepper to ensure that it functions properly.

As to claims 22,49,70 it is very well known in the art to commission a particular number of manufactured goods, usually correlating with the amount needed. Therefore, it would have been obvious to one of ordinary skill in the art to contract the volume to meet current and projected future needs and further, to exercise an option if the product meets requirements.

As to claims 23,24,50,51, it would have been obvious to one of ordinary skill in the art to use the count on the stepper (as a counter device placed on the mask) to determine the volume for the discount, as the stepper would count those used.

As to claims 25,52,71, it is very well known in the art to watermark masks, therefore, it would have been obvious to one of ordinary skill in the art to watermark the masks as this would allow to know which manufacturer had produced the mask in case of either very good or very bad quality.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. US PAT 6,433,146 to Cheryan discloses government subsidizing ethanol made from corn, which subsidies counteract the higher cost of producing ethanol versus making gasoline.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael J Fisher whose telephone number is 703-306-5993. The examiner can normally be reached on Mon.-Fri. 7:30am-5:00pm alt Fri. off.

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The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Michael J Fisher



Patent Examiner
GAU 3629

MF

3/17/05